Exhibit A

Water Rate Increase
To Become Effective 07/01/05
Rates Include first 25,000 gallons - Charged at rates below thereafter

	Current Monthly 07/01/05 (Rounded)	Proposed Rate Inc. 8% 07/01/09 (Rounded)
Single-Family Residential/Churches:		
5/8" *	$26.00	$28.00
3/4" *	$30.00	$32.50
1" *	$38.75	$42.00
Multi-Family Residential:		
5/8" - First Unit **	$26.00	$28.00
Each Additional Unit **	$23.00	$25.00
3/4" - First Unit **	$30.00	$32.50
Each Additional Unit **	$23.00	$25.00
1" - First Unit **	$38.75	$42.00
Each Additional Unit **	$23.00	$25.00
Commercial:		
5/8" *	$26.00	$28.00
3/4" *	$34.50	$37.50
1" *	$50.25	$54.50
1-1/2" *	$72.25	$78.00
2" *	$119.00	$128.50
Governmental/Non-Profit Org.:		
5/8" *	$26.00	$28.00
3/4" *	$34.50	$37.50
1" *	$50.25	$54.50
1-1/2" *	$72.25	$78.00
2" *	$119.00	$128.50
Fire Sprinkler - Monthly Standby:		
2" Meter	$9.50	$10.50
3" Meter	$33.25	$36.00
4" Meter	$34.50	$37.50
6" Meter	$39.50	$43.00
8" Meter	$49.25	$53.50
10" Meter	$62.50	$67.50

No Vacancy Credits Given
* First 25,000 gallons included in minimum charge. Next 10,000 gallons @ $0.05/100.
Next 15,000 gallons @ $0.04/100. Next 25,000 gallons @ $0.03/100.
Balance of usage @ $0.02/100 gallons.

** First 25,000 gallons included in minimum for 1st service.
Each additional service includes 15,000 gallons; Thereafter charged at $0.05/100 gallons.

August 25, 2010

Nevada City Water Rate Recommendations

PROBLEM STATEMENT:

- Nevada City's water rate fees have not been and will not be sufficient to meet operations and maintenance (O&M) costs. For fiscal year 2008/09 the water fund expenses were $251,000 more than revenue collected or nearly a 50 percent deficit ($755,000 vs. $504,000). This difference is misleading however in that it does not represent the true shortfall if we add in needed capital improvement expenditures.
- Current fees include no amount for much needed capital improvements. The City's capital improvement plan (CIP) for water (Attachment 1) is not being implemented due to lack of funds. This can only lead to further expense and service disruption if not addressed. In addition the water fund does not include reserves for unanticipated expenses.
- The current essentially flat rate is inequitable, fails to encourage conservation, and is inconsistent with State law and best management practices requiring that at least a portion of the rate be based upon water usage. The rate structure is not equitable in that charges are a flat rate until 25,000 gallons per month (gpm) is exceeded. Most residences do not exceed this amount even during summer. As a result a single person pays the same as their neighbor with four in the household. Further AB 2572, mandates all jurisdictions as of January 1, 2010 to base at least a portion of their water bills on a volumetric basis.

SOLUTION:

To address these deficiencies water rates need to be increased, designed in a manner to solve inequities and encourage water conservation.

WATER RATE STUDY:

Current Water Rate Structure

The City's current water rate structure includes two components. The first is a fixed monthly fee based on meter size and this charge includes the first 25,000gpm. The second is a usage or commodity fee that applies to use above 25,000gpm. Due to this high threshold few users incur commodity charges in their water bill and therefore the City for all intents and purposes has a fixed fee structure.

The City has had this rate structure since at least since 1980. During that time residential rates have increased 100 percent while the U.S. Department of Labor Consumer Price Index has increased 164 percent. Said another way, the $14/mo. charge to residential customers in 1980 would be $36.98/mo today when adjusted for the CPI. This is about a third more than the current $28.00/mo charge. (See attachment 2 for current rates)

New Rate Structure Objectives

The new rate structure objectives are intended to:

1. Be equitable to all customers;
2. Make water fund self sufficient and provide adequate CIP and reserve funding—depends on Council direction as to degree;
3. Encourage water conservation;
4. Be easy to understand and administer;

How Existing Rates Would Be Modified Based on Objectives

Based on the objectives, the new rate structure would modify the existing as follows.

1. Move to a true combined Fixed Fee and Commodity Charge formula—Based on early bi-monthly meter readings the annual average monthly usage in Nevada City is approximately 9,000 gpm. Higher in summer months but still few exceed the current 25,000 gpm threshold before the usage fee applies. Presently less than 4 percent of the City's water revenue is generated by the commodity charge. It would be more equitable to charge customers on the quantity of water used for at least a portion of their bill and is now required by AB2572.
2. Align Meter Ratios with American Water Works Association (AWWA) Meter Capacities—The City's current meter ratios--the ratio of the charge for a given meter size compared to that of a base 5/8-inch meter--are not aligned with meter capacity. For example, a 2-inch meter has the equivalent capacity of eight 5/8-inch meters but currently pays a fixed fee that is only 4.57 times that of a 5/8-inch meter. It is recommended the City revise its fixed minimum charge to align with meter capacity standards established by the AWWA. Although there is no law mandating use of these meter ratios, they are industry standards used widely throughout California and are recognized as being equitable by the California Public Utilities Commission, which has also approved the same meter ratios. This would result in increases to the fixed minimum charges for customers with large meters.
3. Eliminate fixed fee for additional residential units--Currently residents and businesses pay an additional fixed fee for additional dwelling units. The proposed rate structure will be a combination of fixed fee and commodity charge. With greater reliance on water quantity in water bill determination there is much less reason to charge for additional dwelling units when a single property has the same meter size as a neighboring single family home. It could be argued what is the difference between a single family residence with 3 bedrooms compared to a house with two bedrooms and a second unit behind with one bedroom. With equity in mind it is difficult to argue the customers above should pay different fixed fee amounts for same meter size. Neither Grass Valley nor NID charge for additional units.
4. Phase out Non-Residential Rate Differential—The City's residential and non-residential customers are served by the same water system. The cost of service does not vary between these two customer classes. Yet the two classes pay different fixed rates for ¾-inch meters and larger. To improve equity it is recommended the City eliminate this differential.

Rate Design Steps and How Applied to City

There are three steps in developing rates.

1. Determine revenue needs.
2. Determine cost of service.
3. Design rate structure.

Revenue Requirements- To determine revenue requirements actual expenses for FY 08/09 were used and then modified to incorporate recommended expenditures. With the help of the two prior FY years expenditures, staff reviewed and discussed each line item and considered future expenditures. This created a desired baseline budget for FY 08/09 and led to development of budgets for each year through FY 13/14 (See attachment 3). The largest modifications to the adjusted FY 08/09 expenses came from the addition of $100,000 for capital improvements and $41,000 for operating reserves.

Cost of Service- Cost of service is the segregation of unique costs to various customer classes. For example the cost of service would be different between treated water customers and raw water users, or between in town customers and a customer located a significant distance outside City core requiring added transmission and pumping expense. In Nevada City's case it was judged all customer classes, single family, muli-family and commercial/institutional, were essential of the same class. Grass Valley came to the same conclusion for its customers, as did NID for its treated water customers.

Rate Structure Design- Rate design provides many choices but focuses primarily on the percentage split between fixed fee and commodity charge components of rate, a choice between uniform commodity charges vs. tier commodity rates and if tiered, the number of tier steps and percent increase between steps. All will influence water conservation.

1. Split between fixed fee and commodity charge--The California Urban Water Conservation Council (CUWCC) has established best management practices (BMP) as they relate to water conservation. BMP No. 11 states in part to be considered conservation oriented, the rate structure must collect at least 70% of its total revenue from the volumetric portion of the rate design. While this may be a goal City may want to reach, it should be noted the greater the dependency on commodity charges the greater the chance of revenue instability due variable weather patterns and changing customer use habits. In an effort to balance the water conservation goal against revenue stability it is recommended a 50/50 split be used. City may opt to increase its commodity fee component in future years as more data becomes available to better predict annual usage.

2. Uniform vs. tiered commodity rate—Uniform rate is same for the first gallon as the last while inclining tiered rates increase after first step and provides a stronger conservation message. Locally Grass Valley employs a uniform commodity rate while NID uses a two step tier.

3. Tiered system—Here the choices are the number of tier steps, water use threshold of each step and percent rate differential between each step. In reviewing several

other Sierra Nevada water agency rate structures the choices on the above factors differed considerable. For example Placer County Water Agency employs 7 steps with incremental cost increases ranging from 6.5-12.5% with overall increase from first step to last of 73%. Susanville was similar with 6 steps but overall increase was 32%. Quincy, NID and Jackson chose 2 steps, with step increases of 15, 29 and 50% respectively. Agencies studied set their first step (base or life line) usage generally in the range of between 2,300-5,500gpm. For our purposes it is recommended we keep it simple and go with 2 steps with a 30% rate differential between steps and set the flow allowance for first step at 0-4,000gpm. This approached is similar to that used by NID.

Additional Data Needed to Calculate Water Rates

To calculate preliminary water rates a couple more pieces of information are needed. First we need number of customers and size of their meters and secondly how much of the recommended budget expenditures for FY 10/11 does Council want to raise through water rates.

Water Customer Data -- The City provides treated water service to 1,217 customers. The customer base is primarily residential with both single and multi-family representing almost 85% of all customers and approximately 75% of water use. Commercial, government and none-profits represent the remainder. Most customers are served by the smallest meter sizes with nearly 95% served by 5/8-inch or 3/4-inch meters. Following table shows by customer class the number of accounts, and equivalent 5/8-inch meters based on AWWA data.

Nevada City Treated Water System
Customer Data Information

Table 1

	Meter Size							
Customer Class	**5/8"**	**3/4"**	**1"**	**1.5"**	**2"**	**3"**	**4"**	**Total**
No. of Accounts								
Single Family	912	17	13					942
Muti-Family	59	14	14					87
Commercial	116	18	16	1	1	4	1	157
Gov't/Non-Profit	2	2	2		12			18
Misc.	8	1	1		3			13
Total Accounts	1,097	52	46	1	16	4	1	1,217
Hydr. Cap. Factor (AWWA)	**1**	**1.5**	**2.5**	**5**	**8**	**15**	**25**	
No. of 5/8" Equivalent Meters								
Single Family	912	26	33	0	0	0	0	970
Muti-Family	59	21	35	0	0	0	0	115
Commercial	116	27	40	5	8	60	25	281
Gov't/Non-Profit	2	3	5	0	96	0	0	106
Misc.	8	2	3	0	24	0	0	36
Total 5/8" Equiv. Mtrs.	1,097	78	115	5	128	60	25	1,508

Four Possible Funding Scenarios -- To calculate rates Council needs to decide if they want to keep, reduce or eliminate the present subsidy and if they want to provide funding for capital projects and establish a reserve.
To give Council an idea of the impact their decision would have on customer water bills, four funding scenarios were developed for FY10/11.
Regarding subsidy it was assumed to, a) continue with present $250,000 subsidy, or b) eliminate it. And regarding whether or not to provide $150,000 for capital improvements and a reserve, it was assumed, a) no funding, or b) 100% funding.

These assumptions produce four revenue requirement scenarios as follows.

A) Continue $250,000 subsidy and no funding for CIP/reserve-$520,000.
B) Continue $250,000 subsidy and fully fund CIP/reserve-$670,000.
C) Discontinue $250,000 subsidy and no funding for CIP/reserve-$770,000.
D) Discontinue $250,000 subsidy and fully fund CIP/reserve- $920,000.

Preliminary Water Rate Calculations

Based on the above information and assumptions the following sample monthly rates were developed. All calculations are based on a 5/8-inch meter which represents nearly 91 percent of all customers. (For customers with larger meters the fixed charge portion would increase based on meter factors discussed earlier.)

Table 2

Sample Monthly Water Rates for 5/8 Meters Based on Funding Scenarios

Funding Scenarios	Fixed Charge per Month	Tiered Commodity Charge (per 1000 gals)	
		Step 1 (1st 4000 gals)	Step 2 (>4000 gals)
A	$14.37	$1.58	$2.05
B	$18.50	$2.04	$2.65
C	$21.28	$2.34	$3.04
D	$25.41	$2.80	$3.64

Once commodity charges are added to a rate structure it is difficult to understand cost to customers who use different water amounts. Therefore to help understand the rates in Table 2, cost calculation were made for three possible customer usage amounts of low (4,000gpm), medium (9,000gpm) and high (20,000gpm), and the results are shown in Table 3. For a comparison of these costs with other jurisdictions see Table 4.

Nevada City
Sample Monthly Water Rates Based on Four Funding Scenarios with Low, Medium, and High Usage
(5/8" Meters)

Table 3

Funding Scenario	Current	A	B	C	D
Low - 4,000 gpm	$28.00	$20.69	$26.66	$30.64	$36.61
Med - 9,000 gpm	$28.00	$30.94	$39.91	$45.84	$54.81
High - 20,000 gpm	$28.00	$53.49	$69.06	$79.28	$94.85

Rate Comparison with Other Jurisdictions

NC Water Fund Study

Table 4

	Nevada Irrigation District*	Jackson	Susanville	Calaveras County Water District	Quincy Community Service District	Grass Valley	Placer Co. Water Agency	Tuolumne Utilities District	Yuba City	Truckee-Donner PUD**
Rates Effective	*3/1/2009*	*7/1/2009*	*8/1/2008*	*7/1/2009*	*7/1/2010*	*1/1/2010*	*1/1/2009*	*7/1/2009*	*7/1/2008*	*1/2/2009*
Low - 4,000 gpm	$22.57	$26.52	$26.58	$32.50	$32.65	$33.12	$34.03	$35.09	$51.96	$55.35
Med - 9,000 gpm	$31.10	$45.65	$34.89	$34.53	$41.50	$48.27	$43.22	$45.11	$59.22	$58.24
High - 20,000 gpm	$53.31	$89.19	$54.68	$54.24	$60.97	$81.60	$65.15	$68.46	$75.19	$65.83

Notes:

*** NID collects 58% of its revenue from water rates**
**** Truckee-Donner rates do not include additional charge for pump zones.**

Risk Assessment

There is some risk in development of the commodity portion of rate structure. This is because total annual water usage is used to compute the commodity portion of rate. We have only a few months of meter readings to go on. It would be very desirable to have a complete year or better yet several complete years. Usage will vary from month to month and from year to year based on weather conditions and customer use habits. In addition customer usage will likely decrease under the new rate structure that encourages water conservation.

For this report estimates of total annual City wide water usage were based on several months of meter readings and then expanded for a full year based on five years of monthly water treatment plant flow records. This data in turn was compared to usage in Grass Valley over a recent three year period and the results were close.
What can be done? Because less water is likely to be used, we reduced the estimated flow used to calculate rates by 10% to account for water conservation and to help offset estimating errors. Further we can monitor usage and if use appears significantly different than projected, than matter returned to Council for discussion.

Questions for Council

To prepare final water rate recommendations the Councils needs to answer the following.

1. Does Council wish to eliminate the $250,000 subsidy the water fund receives?
2. Does Council support funding water capital improvements and providing a reserve?
3. If subsidy eliminated and CIP and reserve funded, does Council want changes phased in and if so over what time period? If phased in does Council want to adopt a multi-year rate adjustment schedule?

Next Step

Following Council direction rates can be developed and presented to council. It is then necessary to notify customers of the proposed new rates and set a public hearing 45 days later. Following a public hearing Council may take whatever action it considers appropriate.

Attachment 1

City of Nevada City
Capital Improvement Plan 2010 - 2016
(Excerpt from Nevada City's five year CIP)

Project #	Project (Name/Title)	Estimated Year Completed	Total Cost	Funds	Gap Funding Required for Completion
	Water Plant Upgrades				
35	Automatic Tank Valves	2011	$20,000		$20,000
36	Plant Upgrade/Rebuild	2015	$4,150,000		$4,150,000
	Water Distribution System				
37	4" Water Line Am Hill to Old Downieville	2012	$95,000		$95,000
38	4" to 6" Water Main Prospect Street	2012	$75,000		$75,000
39	Control Data System	2012	$200,000$	5,000$195	,000
40	6" Water Main N Pine St	2011	$160,000		$160,000
41	4" to 6" Water Main Park Ave	2012	$85,000		$85,000
42	Intertie System (2 req)	2011	$45,000	$5,000	$40,000
43	New Water Valves	2012	$150,000$	3,000$147	,000
44	6" Water Main Woodpecker Lane	2012	$175,000	$15,000	$160,000
45	6" Water Main S Pine St/Cross St	2013	$220,000	$20,000	$200,000
46	New Flow Meters @ Water Plant	2012	$46,000	$5,000	$41,000
47	Clean & Repaint Water Tanks	2013	$200,000	$20,000	$180,000
48	Alt. Valves & SCADA @ Water Plant	2013	$142,000		$142,000
	TOTAL		$5,763,000	$73,000	$5,690,000

Attachment 2

Nevada City Water Rates
Effective July 1, 2009
Rates for first 25,000 gallons - thereafter charges at rates shown below

		Current Monthly Rates (Rounded)
Single-Family Residential/Churches:		
5/8"*		$28.00
3/4"*		$32.50
1"*		$42.00
Multi-Family Residential:		
5/8"	First Unit**	$28.00
	Each Additional Unit**	$25.00
3/4"	First Unit**	$32.50
	Each Additional Unit**	$25.00
1"	First Unit**	$42.00
	Each Additional Unit**	$25.00
Commercial		
5/8"*		$28.00
3/4"*		$37.50
1"*		$54.50
1-1/2"*		$78.00
2"*		$128.50
Governmental/Non-Profit Org.:		
5/8"*		$28.00
3/4"*		$37.50
1"*		$54.50
1-1/2"*		$78.00
2"*		$128.50
Fire Sprinkler- Monthly Standby:		
2" Meter		$10.50
3" Meter		$36.00
4" Meter		$37.50
6" Meter		$43.00
8" Meter		$53.50
10" Meter		$67.50

No Vacancy Credits Given
* First 25,000 gallons included in minimum charge.
Next 10,000 gallons @ $0.05/100 gals., Next 15,000 gallons @ $0.04/100 gals.
Next 25,000 gallons @ $0.03/100 gals., Balance of usage @ $0.02/100 gals.

** First 25,000 gallons included in minimum for 1st service
Each additional service includes 15,000 gallons; thereafter charged @ $0.05/100 gals.

Attachment 3

Nevada City Water System
Budget Projections
Five Year Plan ($k)

	Adjusted FY'08/09*	FY'09/10	FY'10/11	FY'11/12	FY'12/13	FY'13/14
Salaries & OT	192.0	197.8	203.7	209.8	216.1	222.6
NID Water Purchases	125.0	125.0	125.0	125.0	125.0	125.0
Benefits	116.5	120.0	123.6	127.3	131.1	135.1
Capital Outlay	100.0	103.0	106.0	109.0	112.6	115.9
Debt-Bond Principle & Int	99.8	99.7	99.7	99.7	99.7	99.7
Outside Services	46.0	68.3	71.0	73.2	75.5	77.7
Supplies, Maint.& Misc	40.9	42.0	43.4	44.6	46.0	47.4
Chemicals & Testing	27.0	27.8	28.6	29.5	30.4	31.3
State & County Fees	27.0	27.8	28.6	29.5	30.4	31.3
Utilities	16.2	16.6	17.3	17.7	18.3	18.8
Liab. Ins	13.5	13.9	14.3	14.8	15.2	15.7
Reserve (5%)	41.2	43.0	43.8	44.6	45.5	46.4
Negative Interest	13.4	10.7	8.0	5.4	2.7	0.0
A-87 Not Yet Captured	6.2	6.4	6.6	6.8	7.0	7.2
Total	864.7	902.0	919.6	936.9	955.5	974.1

* Baseline year